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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,507	07/15/2004	Masayoshi Handa	1422-0635PUS1	8270

2292 7590 06/16/2006

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EXAMINER

BERNSHTEYN, MICHAEL

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/501,507	Applicant(s) HANDA ET AL.	
	Examiner Michael Bernshteyn	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>03/14/06, 12/30/05, 10/13/04, 07/15/04</u> | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. This Office Action follows a response filed on March 14, 2006. Applicants have amended claims 1 and 5, claim 8 has been cancelled.
2. Claims 1-7 are pending.

Claim Rejections - 35 USC § 102

3. The test of this section of Title 35, U.S.C. not included in this action can be found in a prior Office Action.

Claim Rejections - 35 USC § 103

4. The test of this section of Title 35, U.S.C. not included in this action can be found in a prior Office Action.
5. Claims 1-4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable as obvious over Tsuchiya et al. (U.S. Patent 5,903,399) in view of Nosokawa et al. (EP 0257951 A2) for the rationale recited in paragraph 3 of Office Action dated on November 14, 2005.
6. Claim 5 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tsuchiya, for the rationale recited in paragraph 4 of Office Action dated on November 14, 2005.

Response to Arguments

7. According to the amendments made by the Applicants, the rejection under 35 U.S.C. 112, first paragraph of claim 8 and the rejection under 35 U.S.C. 112, second paragraph of claim 5 are withdrawn.

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8. Applicants traverse the rejection under 35 U.S.C. § 102(e) and/or 103(a) of claim 5 over Tsuchiya as being improper. Applicant's arguments have been fully considered but they are not persuasive.

9. Applicants contend that according to the U. S. Code, Title 32, sections 102 and 103, the cited reference must disclose each and every claim limitation as recited by the pending claim. Furthermore, it is uncertain how claim 5 could be anticipated by Tsuchiya et al. but not any of claims 1-4, which claim 5 depends. According to 37 C.F.R. § 1.175(c), a dependent claim must necessarily include each and every limitation recited by the independent claim from which it depends and include an additional limitation not recited by the independent claim from which it depends. Thus, if claims 1-4 are not anticipated by Tsuchiya et al., then obviously claim 5 also cannot be anticipated by Tsuchiya et al. (pages 5-6)

10. Applicants contend that claim 5 recites, in part, "adding a reducing agent or an oxidizing agent thereto in an amount of 0.001 to 6 parts by weight, based on 100 parts by weight of the α,β -unsaturated carboxylic acid before initiation of drying and/or during drying of a gelated product containing a water-absorbent resin obtained by polymerization". Tsuchiya et al. disclose reducing agents and oxidizing agents used in the process of polymerizing water-absorbing polymers as polymerization initiators. In contrast, the present invention clearly recites reducing agents and oxidizing agents applied to the water-absorbing polymers after the polymer has been created (page 6).

11. In response to applicant's arguments it is worth to mention that when the reference teaches a product that appears to be the same as, or an obvious variant of,

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the product set forth in a product-by-process claim although produced by a different process (Form Paragraph 7.27). See *In re Marosi*, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) and *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See also MPEP § 2113.

It should be again pointed out that in view of substantially identical monomer, reducing and oxidizing agents, metal chelating agent, process producing such products (compare US'911, pages 9-10, [0117], Examples 1 and 2, and the specification, pages 18-20, Example 1) being used by both Tsuchiya and the applicant, it is the examiner position to believe that the product, i.e. water-absorbent resin of Tsuchiya is substantially the same as the water-absorbent resin recited in claims 1, 5 and 8, even though obtained by a different process, consult *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Since the USPTO does not have proper equipment to do the analytical test, the burden is now shifted to the applicant to prove otherwise.

It is axiomatic that one who performs the steps of a process must necessarily produce all of its advantage. Mere recitation of a newly discovered property or function what is inherently possessed by the things or steps in the prior art does not cause a claim drawn to those things to distinguish over the prior art. *Leinoff v. Louis Milona & Sons, Inc.* 220 USPQ 845 (CAFC 1984).

Furthermore, Tsuchiya clearly discloses the usage of hydrogen peroxide solution as an oxidizing agent (Example 1, page 9, [0117]), not as polymerization initiator as Applicants contend. Tsuchiya also discloses that suitable reducing agents are capable

of forming a redox system with said oxidizing agents, specifically sulfites such as sodium sulfite or sodium hydrogensulfate, sodium thiosulfite, etc. These reducing agents are used in the amount of about 0.001-10% by weight on the basis of polymerizable monomers (page 4, [0062], [0063]).

All of the above compounds and their range amount are fully match to claims 1-3.

12. Furthermore, Applicants contend that the reducing agents and oxidizing agents disclosed by Tsuchiya et al. do not suppress coloration after polymerization has been completed, and Tsuchiya et al. use the reducing and oxidizing agents for completely different purposes (pages 6-7).

13. In response to applicant's arguments it is worth to mention that the claims and the specification do not contain the information about the colorization-reducing properties of the reducing and oxidizing agents. It can be considered as new subject matter, which was not disclosed in the claims and the specification.

Additionally, it is completely unclear, why exactly the same compounds being used by Tsuchiya, as reducing and oxidizing agents do not suppress coloration, and they have completely different affect being used by Applicants.

The difference between the process for preparing a water-absorbent resin disclosed by Tsuchiya and that claimed by applicant is that the reducing and oxidizing agents applied during the polymerization process while according Applicants they applied before initiation of drying. However, since Applicants do not demonstrate the criticality of adding of reducing and oxidizing agents before initiation of drying, the selection of any order of performing process step is *prima facie* obvious in the absence

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of unexpected results. *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) and Selection of any order of mixing ingredients is *prima facie* obvious. *In re Gibson* 39 F. 2d 975.5 USPQ 230 (CCPA). See MPEP § 2144.04

14. Applicants traverse the rejection of claims under 35 U.S.C. 103 (a) as being unpatentable over Tsuchiya et al. in view of Nosokawa et al. (EP 0 257 951 A2).

Applicant's arguments have been fully considered but they are not persuasive.

15. Applicants contend that the Examiner states that Nosokawa et al. disclose a disposable diaper comprising an absorbent layer which comprises "a polymeric absorbent which is a resin containing "from 0.01 to 10% by weight of metal chelating agent" which may include EDTA, etc. However, the motivation in Nosokawa et al. to add a metal chelating agent is to create an absorbent polymer having no reduction in the water absorbing performance and having an excellent stability of swollen gel over time. Thus, Nosokawa et al. fail to disclose the use of a metal chelating agent to suppress colorization, as recited in the present claim (page 8).

16. In response to applicant's arguments it is worth to mention that the claims and the specification do not contain the information about the fact that a metal chelating agent should be used to suppress colorization. It can be considered as new subject matter, which was not disclosed in the claims and the specification.

Nosokawa discloses that polymeric absorbent is an absorbent resin composition containing from 0.01 to 10% by weight of metal chelating agent (abstract). The metal chelating agent can include with no particular restriction, for example, ethylenediaminetetraacetic acid (EDTA), tripolyphosphate, citric acid, etc. (page 2,

lines 50-51). Hosokawa indeed does not disclose the usage of the metal chelating agent to suppress colorization, but he uses exactly the same compounds in the claimed range amount for obtaining the same final product.

17. Applicants contend that one of ordinary skill in the art would not be motivated to combine the teaching of Tsuchiya et al., wherein reducing and oxidizing agents are used to initiate polymerization of water-absorbent polymers, with the teaching of Nosokawa et al., wherein a chelating agent is used to increase water absorbency and increase shelf life of water-absorbent polymers found in diapers, to arrive at the presently claimed invention wherein the reducing and oxidizing agents are added after polymerization and chelating agents are added to reduce colorization of water-absorbent resin over time (page 8).

18. In response to applicant's arguments it is worth to mention that these two references are analogous art because they are from the same field of endeavor concerning water-absorbing polymer composition. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ ethylenediaminetetraacetic acid (EDTA) in the amount of 0.01 to 10% by weight as metal chelating agent as taught by Nosokawa in Tsuchiya's water-absorbent resin because the absorbent resin composition incorporated with a specified amount of metal chelating agent in this way shows remarkably improved stability in the form of swollen gel and can maintain the gel form for a long period of time as compared with the case of not adding such an agent (EP' 951, page 2, lines 61-64).

19. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

20. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

21. Applicants contend that the disclosure of the present invention reveals unexpectedly superior results. That is, Comparative Example 2, for instance, reveals that where a reducing agent is added to a water-absorbent resin, the Yellow Index is remarkably increased from 7.7 to 24.0, etc. (page 9).

22. It is noted that Applicants intended to show the difference in these comparative examples between the properties of the closest products. For example, it is necessary to find out the difference of the properties between the product of the reference, which contains both reducing and oxidizing agents as well as a metal chelating agent, and the instantly claimed product. However Applicants has not met the duty to prove that the product of the reference is necessarily different from the instantly claimed product.

23. In the light of the discussion above, the rejection of record has not been withdrawn. The rejection remains in force.

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Bernshteyn whose telephone number is 571-272-2411. The examiner can normally be reached on M-F 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Bernshteyn
Examiner
Art Unit 1713

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